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Live Steam

JOE DYER, JR.

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CONTENTS

2 *Bear Creek Junction*

4 *The Spring Meet Circuit With Bill Leggett*

6 *The Basics of Valve Design*

7 *So You Want To Build A Live Steam Locomotive*

11 *New York Central's Early Power*

"Charadrius Vociferous" May Be Your Next Problem!

12 *Scheduled Meets*

Club News

13 *What Is The B.L.S.?*

14 *Meet Joel Tedder*

Hang No Crepe On Old #3

THE COVER—A recent model Shay locomotive on the Graham County Railroad in North Carolina operates out of its headquarters at Bear Creek Junction.

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board all trains at

Bear Creek Junction

by Robert W. Maynard
SECRETARY, CINCINNATI CINDER SNIFFERS

PHOTOS BY JOE DYER, JR.
COURTESY BEAR CREEK JUNCTION

The Graham County Railroad located between Robbinsville, N. C. on Highway 129 and a junction with the Southern Railway 12 miles distant, is not the busiest line in the world, but it is an operation still in steam. This makes it sort of special! The route from Cincinnati is simple—I-75 South to Knoxville, then #129 and #28 to Fontana Valley. In the "off" season it is a most pleasant place, not that it isn't during the "on" season, except it is less crowded. The Inn is average in price and, the accommodations are good. There are many motels in the area that are much closer to the Railroad, but this spot is very nice. The cafeteria is government-owned, and the food is excellent and at a low price. One advantage of the "off" season is not having to wait in line for everything. The short auto trip to Bear Creek Junction is a pleasant one-hour trip over the top of the mountain.

Robbinsville is only a day's journey South, and the late Fall enchantment of the Great Smokey Mountains is a carnival of color that is a job to behold. The month of October is a wonderous time—the cool mornings, warm sunlight, dry air and the scenic countryside of mountainous beauty and, perhaps best of all, at the end of the tour—a Shay in steam. In fact, two Shays in steam—one in a bright red finish, the other the work-a-day rusty black of the working freight locomotive.

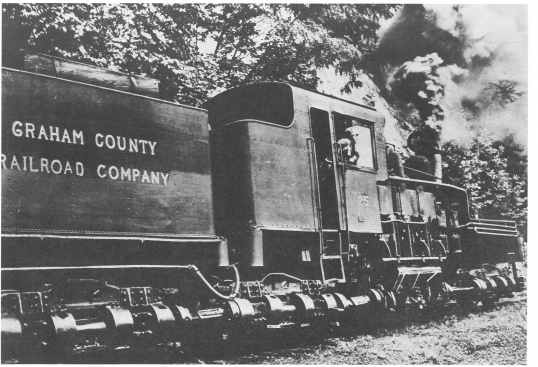
Bear Creek Junction—I know of no reason for the name but to attract visitors—is situated on the banks of a picturesque stream at a midway point between terminals. The station itself is a jewel—newly constructed, but in the time-honored "Railroad Gothic" of the 1880's. The design was selected from a real station in Georgia, but internally modified to suit concession requirements.

We were fortunate to make two round trips—one paying and one as a guest of the Railroad. Our morning journey with blue sky and bright sunlight was perfect for 8 MM movie taking, but for motion shots, the rough track gives the film some jerky effects. The track is unbelievably rough—only a Shay with the sure-footedness of a mountain goat can negotiate the dips and rolls, and the movie shots show the tender sways, lurches and sinks. Actually, the uneasy thought does occur from time to time—just what does keep the train on the rails? Although the weather was ideal for photography, the Graham County Engines are running the wrong way, for the engine side of the Shay is always in the shadow. It makes no difference, either in time or season, as it is possible to get interesting photos, but not quite as easy.

There is usually one freight per day with about four or five cars, and the track runs parallel to the highway for some distance. A telephoto lens would be helpful as at many points the range is too great for a standard lens. Most of the trackage parallel to Highway 129 is level, and if you want shots of a hard working engine, it is necessary to hike to vantage points. If your chauffeur leads you in this direction, the best photos may be selected while riding train.

The Lima ride—and I am not sure why it was cut short—stopped at the highest point overlooking a valley—a breathtaking view—spread out in panoramic splendor below. The autumn hues and the blue haze serve only to make it that way; however, at this time a haze filter might be helpful for distance scenes. Up to this point, the Shay is simply loafing and running backwards. Since the engines are never turned, at least half the time they are on the right end of the train, but facing the wrong direction.

The Graham County joins the Southern Railway at a no-name junction, and leaving this terminal with the Lima Product on the head, the 8% grade makes the stack sound the music we came for. The blast is hard enough to shower the countryside with hot coals; and, as we did on the last trip late in the afternoon, start a small forest fire. Fortunately, this did no more than burn off the underbrush. But the grade—Shay always



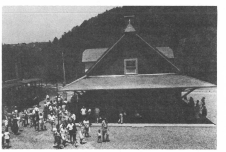
One of the Shays that operate out of Bear Creek Junction makes its way up the 8% grade as the track climbs through the Nantahala National Forest in the Great Smokey Mountains.

sound like sixty and this was no exception! Our only regret is that it isn't longer because the top of the hill signals the long down-hill run to Bear Creek Junction.

The stemwinders in action are most unusual—and I was not surprised to find passengers that did not realize the difference, because to most of the train riders a steam locomotive is just a steam locomotive.

Although the passenger train does not have a diner, an ex-Nickel Plate car is available for your eating. It is a well-kept car, clean and neat. The service is good and it comes complete with atmosphere including railway diner prices! The complete price ticket also gives one a visit to the museum that has many interesting photos and other Railroadisms.

For the "faithful" the quest for steam becomes a little more difficult each year. This railroad intends to be steam for sometime, but ideas and economies change with the calendar. See it while you can, because overnight the sidewinder Shays may vanish into yesterday along with the Hudsons, Mohawks and Berkshires.



Fast becoming an oddity as much as are full-sized steam locomotives are depots! This station at Bear Creek Junction captures the charm and authenticity of a turn-of-the-century prototype.

Dinner in the diner can be enjoyed to the fullest without any danger that a quick application of the air will send your water glass skidding off the table and into your lap!

The Spring Meet Circuit

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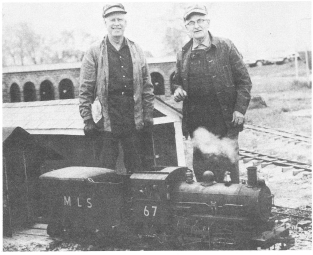

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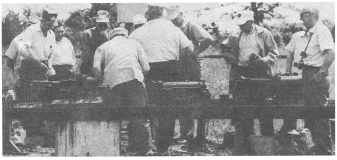

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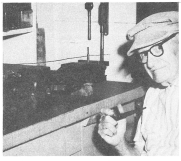

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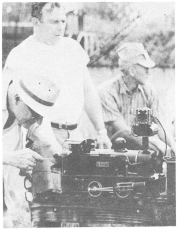

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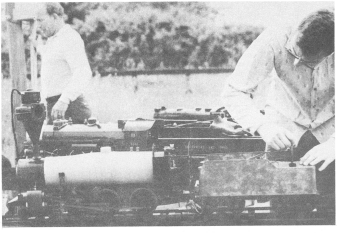

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With Bill Leggett

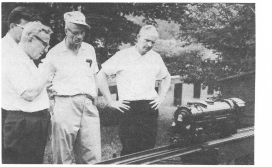
A. W. Leggett, member of the Montreal Live Steamers, attended several of the Live Steam meets in the Eastern part of the continent. Bill has a 3½" gauge 2–8–4 and a 7¼" gauge 0–4–0T under construction and is as much at home with a camera as he is in his shop.

At the Pioneer Valley Live Steamers' meet on May 21, 1967, Bill caught (1) Ben Nixon refreshing himself while he watched his 7¼" gauge Royal Scot run by with Bob Hornsby at the throttle. Andy Anderson's caboose-style auto trailer is shown at left. (2) Wallace Scott of Montreal fires up his ½" L.N.E.R. 4–6–2 and (3) Harry (left) and Jim Turnbull of Montreal leave the steaming track with Jim's 1½" 0–4–0 just completed this Spring.

The Ontario Sun Parlor Lines steaming bay (4) was the hub of activity in Windsor on June 11th where Bill Leggett (5) caught George Hill (6) and Murray Bennell (7) firing up for the run.

At the New Jersey Live Steamers' meet on June 18th, the "track crew": (8) Keith Muldowney (left), and Paul Fitt (center) led by foreman John Muldowney were the envy of background spectators! (9) Ed Gilson (with cap) answers questions about his precision-built 3½" gauge NYC Hudson. Frank Dreschler (10) with his 1½" Atlantic pulls a full carload of passengers while (11) Larry Edwards of Green Bay, Wisconsin (second from left) demonstrates his turbo-generator with steam from Walt Kleinfelder's "plant" (center). Among the many 7¼" engines at the meet were (12) Paul Culp's gasoline powered 0–4–0 camelback and (13) John Muldowney's finely detailed 2–6–0.

8



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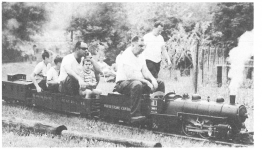

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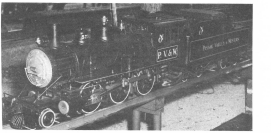


13

The Basics of Valve Design

by Henry J. Coventry, P.E.

Once in a while someone will come up with the statement that "lap is not required in a model engine." This may be through ignorance of what "Lap" and its companion, "Lead" actually are, along with their function. With a clear idea of "Lap" and "Lead" in mind and the layout of a simple diagram, no one need indulge in a hit-and-miss game to establish proper values of dimensions of any proposed valve to work over the ports.

"Lap" is the amount the valve overlaps the ports when it is in the center of its travel. In other words, not only is the valve entirely covering both ports, but it extends beyond both ports. Figure 1 shows this for a slide valve and also for a piston valve. Note in the case of slide valves the "Lap" extends beyond the outer edges of the ports while the piston valve (with inside steam admission) laps beyond the inner edges of the ports. Also note that the Exhaust Cavity of the slide valve and the outer edges of the piston valve lines up with the port edges.

"Lead" has nothing to do with the valve dimensions. *"Lead" is the amount the port is open to steam when the piston is at the end of its stroke* . . . the valve having moved a distance equal to Lap plus Lead from its mid-position as shown in Figure 2.

Locomotive valve gears are arranged for 85 to 87 percent "Cut Off" when in full gear. This means that steam is cut off when the piston has reached maximum travel. Earlier cut off is obtained by linking up the gear, but this does not effect this discussion.

The problem, then, is to provide a "Lap" which will give 85 percent cut off which is found by means of a diagram such as that in Figure 3. Assuming that the port width is known a first approximation of valve travel will be taken as 3½ to 4 times the port width, or a scale of the prototype engine's valve travel may be used. This used to be from 6 to 8 inches. A diagram may be constructed in the following manner:

1. Describe a circle (referring to Figure 3) ABCD to some enlarged scale of travel. Twenty is convenient for engines up to 1" scale and ten for 1½" and up.
2. From A step off distance AE equal to 85 percent of diameter AC.
3. From E erect a perpendicular line to cut the circle at F.
4. From A describe a circle of a radius equal to the "Lead" which will actually be your enlarged scale times 5 to 30 thousandths.
5. From F draw a line tangent to the "Lead" circle FG.
6. From Center O, describe a circle tangent to line FG. Measure radius OH and this will be the required "Lap."
7. Draw line OJ at right angles to line FG and on it describe a circle of half the diameter of the travel circle ABCD. If the drawing is done carefully, the circle will touch at J and pass through the center O.
8. Draw line RS through center O, parallel to FG. From this diagram it will be possible to tell where the valve is in relation to the crank. Imagine the crank revolving counterclockwise with the crank at A. The port is open by the "Lead" and opens more and more as the crank turns from A to J when the port will be wide open. From J to F it will steadily close and at F will be entirely closed. This is the point of "Cut Off." From F to R expansion of the steam is occurring and at R release or exhaust begins. It is open from R to S when it closes and the remaining steam is compressed from S to G.
9. From H measure off HT equal to port opening and describe arc LTK. If this should come within the travel circle ABCD, then the port will be wide open at crank position OLM and remain wide open to OK. On the other hand, if the described arc should fall outside the travel circle ABCD, full port opening will not be realized.

The aim in any well-designed valve gear is to get the ports open wide as soon as possible and longer valve travel will do this. The port opening for any position of crank may be measured radially across the crescent-shaped figure from the "Lap" circle.

This note may seem labored and unnecessary to the knowledgeable individual, but it is not intended for such. It is intended for the newcomer who may have a lot of enthusiasm but is in need of a little help in finding the "why and wherefore" of valve design. The discovery of this often means the difference between success and failure of a locomotive.

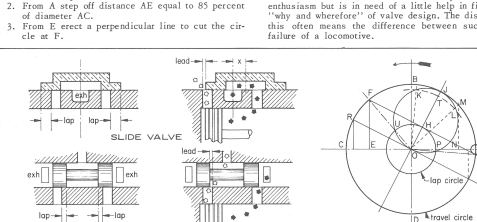


Fig. 1 Fig. 2 Fig. 3

PART FOUR

SO YOU WANT TO BUILD A LIVE STEAM LOCOMOTIVE

CHAPTER 6

JOURNALS AND JOURNAL BOXES

by Joseph F. Nelson

As defined in Webster's New Twentieth Century Unabridged Dictionary (Mechanics), a journal is that part of a shaft that rotates in a bearing, and a journal box is a bearing or a bearing box for a journal. Since the journal and the bearing are the main components of an integrated assembly, one can't get along without the other.

There are two basic types of bearings in use by industry: The type where the shaft turns directly in contact with its bearing (this is known as the friction-type bearing), and the type where the shaft is supported on rollers or balls (this is known as the anti-friction type). There are many other types of bearings for special applications (some applications very exotic), but since this article is dealing with Live Steam locomotives and cars, our examples will be directed to that end with reference to prototype equipment. It must be realized that as things are scaled down and operating conditions are different, designs that may be satisfactory under one condition will be extremely impractical when used under the other condition.

THE FRICTION BEARING

This is by far the most common bearing and is most generally referred to as a "plain bearing." For bearing metal combinations, refer to Chapter 5, Bearing Metals, Various Combinations. It will be noted that babbit, the standard bearing metal for years is not mentioned. This is not an oversight, but was purposely omitted since babbit, being a soft metal, has an affinity for dirt and grit. It becomes charged with grit and wears and grooves the shaft. This is no problem in an automobile crankcase where grit is at a minimum; although, babbit has been replaced by better metals there. However, since the Live Steam locomotive operates in an environment of dirt and grit and is frequently washed after operation by blasting it off with kerosene propelled by a compressed air nozzle, it gets the engine clean at the expense of driving dirt and grit into the bearings.

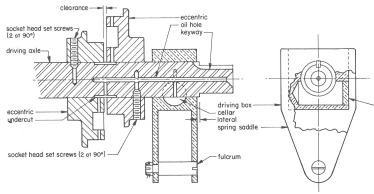
Plain bearings used on journals are half-bearings; that is, there is no bottom half. The space below the journal is an oil reservoir filled with oiled waste that contacts the underside of the journal. This is the lubrication system for that journal and the reservoir is called a cellar. The half-bearings on prototype are called "brasses" even though in a lot of cases they are babbit-lined. Waste or cotton wicking is not very satisfactory for Live Steam locomotives and cars since the strands will get between the journal and the brass. This usually happens when a derailment occurs. While this doesn't cause a "hot box" as it does on prototype equipment, it does increase drag on the engine. It is recommended that where this type of bearing is used, a strip of felt from an old hat or billiard table be inserted below the journal in the cellar. Use a continuous strip of felt rather than a pile of felt layers since a continuous strip wound in a flat coil has more spring to it than a pile of layers and there is less chance of the felt getting between the journal and the brass. Be sure that the end of the coil is down on the bottom of the coil. Material for brasses may be cast brass, bronze, cast iron, or oilite. This also applies to journal boxes where the brass is an integral part of the box; however, do not use oilite for a box where driving spring is below the box and would be placing the oilite under tension.

A variation of the plain bearing is the floating bushing. The floating bushing is not used on axle journals on prototype equipment; however, for journal boxes and even driving boxes, a floating bushing of Super Oilite is hard to beat. There is no necessity of making a press fit for this type of bearing anymore than making a press fit for a parallel rod bushing; in fact, on journal boxes, a clearance of 0.001" to 0.005" between the bushing and the box would be fine. For a driving box, the bushing should be fitted the same as the parallel rod bushings – pressed in with the thumb. In both cases, the fit between the bushing and the journal should be about 0.001" to 0.003". It must be realized that on installations where the box is inboard of the wheel, some provisions must be made to prevent the bushing from sliding out of the box (lead truck wheels, drivers, and inboard bearing trailers). When boring the box, bore from the outside and leave a shoulder. Lubricate through the center of the shaft and delete the cellar.

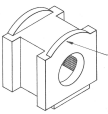
ANTI-FRICTION BEARINGS

The anti-friction bearings available to the Live Steam Locomotive builder are two basic types: ball bearings and roller bearings. Ball bearings have not been successful for use in journals on prototype equipment, probably due to their tendency to chip and break down under shock, such as going through switches, frogs and crossovers. However, ball bearings are very satisfactory for care on Live Steam railroads. This is important! Ball bearings don't like any foreign dirt! Self-aligning, permanently-lubricated, double-row, double-seal bearings are the best; however, it is necessary to establish a minimum so that a novice may go to a surplus store and know what the limitations are. It is assumed that the journal boxes have bolted-on-covers. Then, a single row radial, single shield bearing will get by. Naturally, the single shield (or seal – there is a difference) should be mounted seal or shield in.

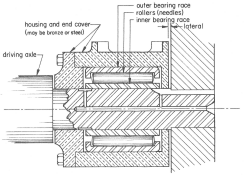
Standard practice on fitting any anti-friction bearing is a press fit to the revolving member and a running fit



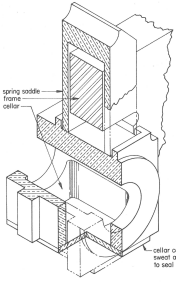
AXLE - DRIVING BOX - ECCENTRIC ASSEMBLY



LEAD TRUCK JOURNAL BOX

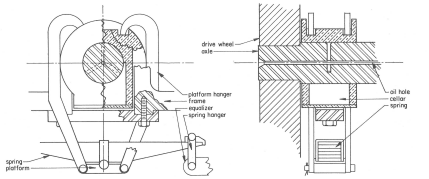


TORRINGTON NEEDLE BEARING DRIVING BOX



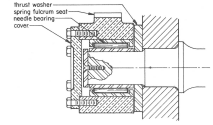
PLAIN DRIVING BOX

JOURNALS AND JOURNAL BOXES



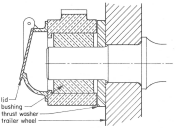
DRIVING BOX ASSEMBLY

DRIVING BOX

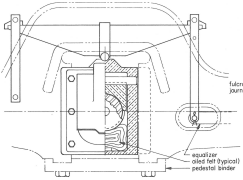


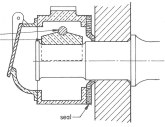
ROLLER OR NEEDLE BEARING TYPE

JOURNAL BRASS



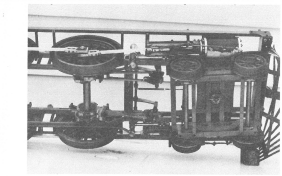
FLOATING BUSHING TYPE

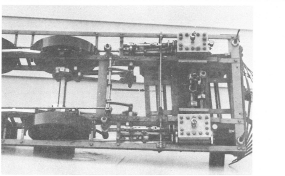




TRAILER TRUCK JOURNAL BOX MOUNTING

JOURNALS AND JOURNAL BOXES





MARK PIPER

An early American chassis by Mark Piper shows attention to running gear detail in this 1½" scale Live Steam model. The outside frame supports are of particular interest and were often used on locomotives built about the time of the Civil War.

to the non-revolving member; and, as a rule-of-thumb, allow 0.0001" per inch of diameter for ball bearings and 0.001" per inch of diameter for roller bearings. That is good for the machinist and tool maker, but the novice had better make a running fit on the shaft and in the box approximately 0.002" per inch of diameter. The extra clearance will not do any harm; in fact, it may assist in making the truck just a little more flexible, which is good. Since ball bearings absorb thrust, it will be necessary to provide for lateral to prevent bearing failure. A good "ball park" figure is 1/32" per inch of scale (not gauge). A tight truck must not place end thrust on ball bearings. The radial and self-aligning ball bearings have a thrust rating of approximately 30% of their radial rating.

The roller bearing is divided into three general types; i.e. taper roller (Timken type), straight roller, and needle. In general, the roller bearing is quite rugged and can stand a lot of abuse compared to the ball bearing; nevertheless, in its own application, each type of bearing is supreme.

The taper roller bearing and some of its variations have certain thrust capabilities that the straight roller and the needle bearing lack. The taper roller bearing is now used to a very great extent on prototype rolling stock although it is not easily adapted to small Live Steam; however, it is used on the driving axles of the Little Engines 1½" Northern.

The main difference between roller bearings and needle bearings is that roller bearings have separators between the rollers like first grade ball bearings and taper roller bearings. Needle bearings do not have separators and are usually made in smaller sizes. Needle bearings are usually supplied without inner races and will run directly on the journal. Where any load is carried, the journal should be hardened. A light case hardening (0.003" to 0.006") is satisfactory. CAUTION! Case hardening compounds are composed mainly of cyanide and are a DEADLY POISON. It is recommended that the novice who has not had shop experience have someone who is experienced do his case hardening.

For use on Live Steam rolling stock, the needle bearing performs as good as the best roller bearing and will run as free and last just as long. If there is a surplus store available, see what they have and if it is at all within reason, stretch or shrink design to meet what is available at an economical figure. This is not sacrificing quality or looks since the outside of the part will not be changed.

Since a roller bearing or needle bearing has no provision to take up thrust, some means to take care of this function must be provided. While the side thrust, even on curves is not extremely heavy, it still must be considered. There is a combination roller-thrust bearing on the market that appears to be catching the eye of the Live Steam locomotive builder. It is the opinion of the author that for driving boxes, it is an unnecessary refinement and that thrust rollers are not sufficiently protected against dirt. There appears to be a radox in the wear of thrust surfaces between an engine alone and the rest of the cars in the train. The wear of cast bronze to cast iron thrust surfaces on the engine (1" scale K-4s) has been practically zero after 11 years of operation, but the wear of the thrust surfaces has been exceptionally high on the tender and the rest of the cars. The answer appears to be the dirt blown from the roadbed by the whistle which is mounted under the cab. For esthetic reasons, the location of the whistle cannot be changed. This means that some other answer had to be found. Thrust washers between the journal box and wheel hub wore out about as fast as they could be replaced. Everything was tried and was found wanting: cast iron, steel, brass, red fiber, and Bakelite. The answer to the thrust problem finally turned out to be Nylon and Teflon. After running many miles, the weat is barely noticeable with no apparent difference between the Nylon and Teflon.

The author has not tried Nylon or Teflon as journal bushings, but sees no reason why either material would not be successful, particularly Teflon. The bushing could be combined with the thrust washer to be a fit loose in the journal box so that it would revolve during operation. A minimum of lubrication would be required. This could be accomplished by packing the outer end of the journal box with oiled felt.

The outside configuration can be either the plain bearing type or the roller bearing type depending upon what the prototype happens to be, except that with a roller bearing type, it becomes a problem to install the journal brass with the fulcrum pin. It is to be noted that the journal brass rides in a notched journal. This takes care of thrust which also leaves the back of the journal wide open for dirt. This can be taken care of by cutting a seal from synthetic rubber approximately 3/32" thick. Stamp the bore approximately 1/64" smaller than the axle and lubricate the axle for a starter before installing the seal. This type of journal, even though prototype, requires care when fitting the brasses, since a little off either way could cause a stiff truck.

NEW YORK CENTRAL'S EARLY POWER

In 1961 Alvin Staufer published his first book on the New York Central's locomotives covering in detail the steam power from 1916 to 1957. These engines were the modern breed, conceived by and ordered directly from the road's headquarters in New York City.

After six years of research and endless hunting for old photos and prints, this second volume is ready covering the NEW YORK CENTRAL'S EARLY POWER from 1831 to 1961. The book's 352 pages contain over 800 photos and drawings divided into chapters on the New York Central & Hudson River; Boston & Albany; Lake Shore & Michigan Southern; Cleveland, Cincinnati, St. Louis & Chicago (the Big Four); Michigan Central; Toledo & Ohio Central and the Pittsburgh & Lake Erie.

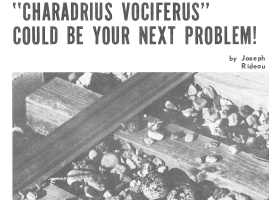
The colorful dust jacket well describes the era covered in this volume: *"Young America was an exciting, turbulent place, with the center of culture and social life being New York City. Commodore Vanderbilt controlled the city's direct rail routes during these years, and so everything his railroad did received due publicity. SPEED was the craze, and the New York Central had the men and the machines to deliver what the public wanted. Deliver it did, with trains and locomotives that were colorful and fast. The men took immense pride in their jobs, appreciating the social position that was associated with running "the Vanderbilt Road."*

This, then, is a fitting companion to Mr. Staufer's earlier work.

Order your copy today. Send $15.00 to LIVE STEAM, Post Office Box 635, Cadillac, Michigan 49601.

"CHARADRIUS VOCIFERUS" COULD BE YOUR NEXT PROBLEM!

by Joseph P. Thomas, President
Rideau Valley & Finch Railway



JOSEPH THOMAS

All 1½" traffic ground to a halt last July on the Rideau Valley & Finch Rwy. in Ottawa, Ontario for a six-week period due to a bad case of "Charadrius Vociferus."

The problem, it seems, emminated from the fact that we had done too good a job of building a realistic looking right-of-way! On discovery of the eggs and tracking down the "squatter," we found that our efforts had completely taken in a Mr. & Mrs. Killdeer, who apparently were under the illusion that they had found the real thing.

According to the National Geographic Society's "Water, Prey and Game Birds of North America," the Killdeer, or "Charadrius Vociferus," favor open locations with an extended view, pastures, cultivated fields... they even use gravel roads, driveways and roofs, and *cinder beds between railroad ties.*

Finally, the eggs yielded three delightfully fuzzy little guys who immediately melted the hearts of the disgruntled and impatient RV&F crews and, of course, were dubbed "Rideau," "Valley" and "Finch."

NEW LIVE STEAM CLUB DIRECTORY BEING PREPARED

Steve Virkovits, who did a yoeman's job in preparation of the first Live Steam Club Tabulation and the Live Steam Club Directory presented in the February 1967 issue of LIVE STEAM, is getting ready to go to work on updating and expanding that information for next winter's report.

Steve will be sending out questionnaires to each club secretary in the very near future and it will be of great help to him if they can be completed and returned without delay.

The report last spring astonished many who had no idea that the Live Steam movement was so vast. With 100% response to Steve's queries, the extent of Live Steam activities should be even more impressive.

LAND! IS HAPPY CRY IN MONTREAL

After three long years of searching, the Montreal Live Steamers have a location at which they can rebuild their operating tracks.

Bill Massie, MLS President, has made about two acres of cleared, level ground available for this purpose. Since no trees, rocks or grades will create construction problems, there will be ample room to construct 1½" and 1" ground level tracks as well as re-erection of the club's 3/4" raised track.

The site is 0.7 miles west of the village of Cedars... just a few miles west of Montreal.

All Live Steamers share the enthusiasm of this active group and look forward to the announcement of track completion!

PVLS FALL MEET

Four days of fellowship and activity are scheduled for Live Steamers at the Pioneer Valley track at Southwick, Massachusetts on October 12, 13 14 and 15, 1967.

The club's fine facilities for 3½" and 4¼" gauge running will be available as well as the newly relaid 7¼" track which was first used at the Spring Meet this year.

If you plan to attend and need any further information, contact PVLS President R. W. "Bob" Sattler, 374 Prospect Avenue, West Springfield, Mass. 01089.

GEORGIA CLUB FORMED

The labors of Syd Watts have born fruit in Georgia with a list of eight Live Steamers who make up the Rebel Live Steam Association.

The name, they hasten to add, is not because they are in the South... they discovered that they share not only an interest in Live Steam, but a mutual view of present "Give-a-mint" policies!

Plans have been made for an 800' out-and-back track of 4¼" gauge with two turntables as well as switches and crossings. Maximum grade will be 3%, and grading for this ground-level track will begin soon.

No officers have been elected but the group meets at the home of Sydney H. Watts, 2532 Hogan Road, East Point, Georgia 30044 at 7:30 p.m. on the last Friday in each month. Drop Syd a note or phone him at 875-5344 or 767-7023 for more information.

ONTARIO SUNPARLOR LINES SPRING MEET REPORT

June 10th and 12th saw Live Steamers from far and near gather at the OSL track in Windsor for many hours of running and lots of friendly conversation.

Present with their engines were:

Three-quarter inch scale

Arthur Allen	
Buchanan, Michigan	4–6–4
Murray Bennell,	
Windsor	4–6–0
Frank Birch	
Essex, Ontario	2–4–0
Eric Corbett,	
Dearborn, Michigan	0–6–0
Larry Edwards,	
Green Bay, Wisconsin	4–4–2
Sid Field,	
Windsor	2–6–0
Fred Hanson,	
South Bend, Indiana	4–4–2
Jack Hart,	
Windsor	4–4–0
George Hill,	
Toronto	0–4–0
Carl Hoffman,	
Kitchener	4–6–2
Dave Jarvis,	
Toronto	4–8–2
Ed Kolasinski,	
Menasha, Wisconsin	4–6–4
Jack Lilbourne,	
Wilsonville, Ontario	(UC) 4–6–6T
Lloyd Proctor,	
Inkster, Michigan	Tom Thumb
Al Roedding,	
Toronto	4–8–4
Tom Sullivan,	
Wayne, Michigan	2–4–0
Alf Thorpe,	
Toronto	0–4–0
George White,	
Garden City, Michigan	0–4–0

One Inch Scale

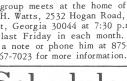
Robert Gillies,	
Windsor	4–4–0
George Papp,	
Niles, Michigan	4–6–2

Also present were three Live Steamers of long standing...Rex Smith from Port Rowan, Ontario, Jim Turnbull from Montreal and A. W. "Bill & Mrs. Leggett from Montreal.

Plans are now being made by the Windsor Club members to start a gradual rebuilding of their elevated track. Concrete A-frame supports and much heavier stringers have been proposed and the big task will begin soon.

The Live Steamers in Windsor have been genial hosts to many meets and an "International Work Bee" might be as much fun as a Run Day. Check with Jack Hart, Secretary, 1381 Shepherd Street, Windsor, Ontario, Canada, to see if their work schedule coincides with one of your free week ends!

Scheduled Meets



AUGUST

12 SOUTHERN MINNESOTA LIVE STEAMER
13 ASSOCIATION
3½" – 4¼"
Richard M. Winkle, President
220 First Avenue Southwest
Rochester, Minnesota 55901

19 MICHIGAN CLUB (forming)
Organization meeting 1:00 p.m. at
Jack Spalding's track
13782 Lake Drive
Monroe, Michigan

SEPTEMBER

2 PENNSYLVANIA LIVE STEAMERS
3 Annual Fall Meet
4 2½" – 3½" – 4¼"
Frank H. Moore, Jr., Secretary
211 Walnut Street
Wayne, Pennsylvania 19087

9 GOLDEN GATE LIVE STEAMERS
10 Annual Fall Meet
2½" – 3½" – 4¼" – 7½"
Joseph W. Bryan, Secretary
1225 Scott Street
El Cerrito, California 94530

15 NEW JERSEY LIVE STEAMERS
16 Annual Fall Meet
3½" – 4¼" – 7½"
Ralph Green, Secretary
845 Haworth Road
Elizabeth, New Jersey 07208

30 LOS ANGELES LIVE STEAMERS
1 Annual Fall Meet
W. Rose Crawford, Secretary
6900 Roger Street
Canoga Park, California 91304

OCTOBER

12 5th ANNIVERSARY RUN
4¼" Gauge
James L. Banning
3333 Kahawalu Drive
Honolulu, Hawaii 96817

12 PIONEER VALLEY LIVE STEAMERS
13 Annual Fall Meet
14 3½" – 4¼" – 7½"
15 Robert W. Sattler, President
374 Prospect Avenue
West Springfield, Mass. 01089

REGULAR RUN DAYS

GOLDEN GATE LIVE STEAMERS
Every Sunday, Weather permitting
2½" – 3½" – 4¼" – 7½"
Joseph W. Bryan, Secretary
1225 Scott Street
El Cerrito, California 94530

LOS ANGELES LIVE STEAMERS
1st Saturday & Sunday each month
3½" – 4¼" – 7½"
W. Rose Crawford, Secretary
6900 Roger Street
Canoga Park, California 91304

PENNSYLVANIA LIVE STEAMERS
2nd Sunday each month, May thru Oct.
2½" – 3½" – 4¼"
Frank H. Moore, Jr., Secretary
211 Walnut Street
Wayne, Pennsylvania 19087

SOUTHERN CALIFORNIA LIVE STEAM CLUB
3rd Sunday of each month
3½" – 4¼" – 7½"
K. G. Keynes, Secretary
2764 Maple
Rialto, California 92376

WABASH, FRISCO & PACIFIC ASSN.
Every Sunday – 12" gauge
George F. Kelly, Jr.
6347 N. Rosebury Avenue
St. Louis, Missouri 63105

WHAT IS THE B.L.S.?

We constantly hear reference to "inadequate communication" as the reason that many efforts fail or that progress is not as rapid as it might be, but it has never been brought home so forcefully to us as it has in the past week. It has been only ten days (as of this writing) since the July issue was mailed and we have received countless letters with questions about "A Report On The BLS Roster" that we ran on page 10. To clarify any points, or to allay any concern about the Brotherhood of Live Steamers, we offer this explanation and extend an invitation to any and all Live Steamers to make their presence known by becoming a member of the BLS.

ORIGIN

Some time prior to the year 1932, the well-known and successful builder of small steam locomotives, Mr. L. Lawrence of Surrey, England, (better known to the fraternity as "L.B.S. C.") made the suggestion that a Brotherhood of Live Steamers be formed. It was also proposed that some Live Steamer should volunteer to act as a secretary with whom all others could register. With this suggestion in mind, Mr. Charles A. "Carl" Purinton assumed the task as self-appointed secretary of the Brotherhood of Live Steamers on this side of the "Pond." As interest grew in the Western States, Mr. Harry L. Dixon volunteered to be secretary of the Pacific region.

After more than thirty years of service as secretary, Mr. Purinton felt that the duties should be turned over to a younger hand and Edgar W. Kruckeberg volunteered to carry on.

Because of the continuing growth of activity in Live Steam, arrangements are now under way with Austin Barr of Harrisburg, Arkansas, to handle the central portion of the U.S.A. and the "official announcement" will be made when details are complete in a month or so.

PURPOSE

It is very discouraging and small pleasure to work alone without the encouragement and congeniality of other Live Steamers. For the mutual benefit of all it is possible to get in touch with others in your vicinity by registering one's name and address with the secretary. The "lone hand" can build good small working steam locomotives, but mistakes can be avoided, corners cut and a great deal more fun and education can be obtained from our hobby by working together.

Please remember that to accomplish this purpose it is essential that all Live Steamers register... otherwise a "lone hand" from your vicinity might be told that there were no other Live Steamers near him if he wrote to the secretary.

ORGANIZATION

A formal set-up of a president, vice-president, etc., is not necessary with this type of a mutual benefit society. The secretaries volunteer their services and there are no expenses except postage and hence no dues. The secretaries do request that return postage or a stamped self-addressed envelope be included when writing for information.

MEETINGS

The annual meeting is usually held in the Fall for two days for all members of the Brotherhood of Live Steamers. This meeting is looked forward to as it provides the means and place to get together, to become acquainted and to see the locomotives brought by other Live Steamers. Since 1938 this annual meeting has been held under the auspices of one of the Live Steam Clubs.

MEMBERSHIP

Membership in the Brotherhood of Live Steamers is open only to those who have built, who are building, who own or who are seriously contemplating the purchase or construction of a small working steam locomotive, steam traction engine, stationary engine or marine engine in the near future.

For the present, if you are EAST OF THE ROCKIES, contact

Mr. Edgar W. Kruckeberg, Secretary
Brotherhood of Live Steamers
Post Office Box 173
Garwood, New Jersey 07027

As details are worked out with Mr. Austin Barr and areas of their territories are established, LIVE STEAM will present them on these pages.

If you live WEST OF THE ROCKIES contact

Mr. Harry L. Dixon,
Pacific Region Secretary,
Brotherhood of Live Steamers
20725 Berlen Way
Castro Valley, California 94546.

REGISTER!

The Brotherhood of Live Steamers exists for one purpose... to introduce YOU to Live Steamers in your area. It can be effective only to the degree that you help to make it so.

Register with the secretary for your area as soon as possible.

Register with LIVE STEAM so that your name can be included in the directory of Live Steamers being prepared now. If you don't want to clip your copies of LIVE STEAM, send the information requested on page 10 of the July 1967 issue (on post-card size, please) so that we can make the list as complete and accurate as possible.

ADVERTISE

Let others know about our hobby by sending 50¢ to

Donald F. Bauer
91 Hickory Lane
Deerfield, Illinois 60015

for your BLS Decal. We are constantly running into men who indicate that they always felt it would be interesting to build a Live Steam locomotive, but never realized that there was such a great amount of activity or availability of materials as there is.

A BLS Decal on your automobile window may open the way for someone else to enjoy this fascinating hobby... as well as bring new and interesting personalities into your circle of acquaintances.

MEET JOEL TEDDER — LARGE-SCALE LIVE STEAMER

Joel Tedder, who keeps LIVE STEAM posted on the growing activity in larger gauges in Southern California (15" up to 4' 8½") has been a railfan from boyhood. Born in the Great Smoky Mountains in North Carolina, Joel lived near Shay logging roads in West Virginia and later near the tracks of four railroads near Akron, Ohio. He traveled the Norfolk and Western up the Sandy River as a boy and had the priviledge of living in Nevada near the Virginia & Truckee R. R. while it was still running! He has the mountains and railroading in his blood.

For many years Joel has been active in planning a system of Home Test Clubs in the travel trailer circles and a 560-acre mountainous site at Joshua Tree, California, has been picked as headquarters for this system of clubs. Research in hobby activities as well as tram and rail transportation systems for use in retirement and resort communities has lead to the planning of a 15" gauge rail line as a major hobby interest and utility line for this club.

The Joshua Tree & Southern Railroad Club is now being chartered and construction of the road and pertinent improvements should begin in the near future. Live Steamers interested in this 15" gauge operation or its proposed 7½" gauge subsidiary should contact Joel Tedder at 4241 East Live Oak Avenue, C 7, Arcadia, California 91006 for further information.

HANG NO CREPE ON OLD #3

Hats off to the members of the Manitoba Live Steamers' Association who have now been authorized by the City of Winnipeg to maintain and test-operate "Old #3."

The club is in a unique position as custodians of a full-size steam locomotive. They carried out light repairs recommended by the Motive Power Department of the C. P. R. They have donations of coal and lubricants as well as running rights on the Greater Winnipeg Water District Railway.

On June 22nd and 23rd a crew consisting of Ralph Grant (president of the Manitoba Live Steamers' Association and a C.N.R. engineer) as engineer, Ed Colson (a C.N.R. engineer) as fireman, Morris Abowitz (vacationing member of the Los Angeles Live steamers . . . how lucky can you get?) as brakeman and John LePage (member of Manitoba Live Steamers' Association and very active in the movement to preserve Old #3 in operating condition) as the conductor made test runs within the yard limits of the G.W.W.D. Ry.

Several runs of 2 miles and one of 4 miles showed that the 85-year-old veteran ran like a colt with a light fire and inspired the crew to new enthusiasm for operating arrangements. All Live Steamers will anxiously await the next report.

...from the cupola

The big news around here this month is the pending move of LIVE STEAM (and staff, of course) to new quarters about ten miles northwest of Cadillac, Michigan. This move, prompted by the "warning" that we reported on in this column last May, culminates a five-month search for "the" place where we could work and relax beyond the pressure-cooker atmosphere of metropolitan Detroit.

The 78-acre site will permit us to finally begin laying the 1½" track that has laid for years in a carton on the garage floor as well as begin to replace the shop equipment that we sold some 15 years ago. It's been a long wait!

Cadillac, which is served by the Ann Arbor Railroad (now part of the DT&I) and a branch line of the P.R. R., is about 200 miles northwest of Detroit. While it places us a long way from any mainline railroad activity, it is a mecca for any Live Steamer. Just eight miles (as the crow flies) ESE of our new location is Missaukee Junction where the P.R.R. interchanges freight with the steam-powered Cadillac & Lake City Railroad! What more could you ask for?

Just a mile south of Missaukee Junction, incidentally, is a spot in Live Steam history that transcends the days when Pennsy cap-stacked H-1's handled the freight and D-24's pulled the varnish from Grand Rapids up to the Straits. The little town of Boring is all but gone, but back in 1873 a man by the name of Ephraim Shay began logging in the forests that covered that area. Dissatisfaction with the methods used to haul logs from the forests to the mills prompted Shay to construct a locomotive suited to the needs of the logging industry. He built several experimental locomotives with the help of a Cadillac machine shop and in 1881 obtained a patent and gave the manufacturing rights to the Lima Machine Works where a total of 2,761 Shay Geared locomotives were built from 1881 to 1945. One of these now rests in the city park just off the main street in downtown Cadillac.

So as soon as this issue is delivered to the Post Office, we will begin packing for the move. As we have it planned we should be able to get right back to work on the September issue when the movers place the last piece of furniture. If the September issue arrives a little late, though, you can safely assume that we overlooked some important detail or misplaced the supply of ink while unpacking!

The move, of course, means a change of address for LIVE STEAM and as of August 1st, 1967 it will be:

LIVE STEAM
Post Office Box 635
Cadillac, Michigan 49601

If you have written to us recently at Box 635 in Birmingham, don't be concerned. We have arranged to maintain that box for at least ten years and for all mail to be forwarded to the Cadillac address.

Without the constant jangle of the telephone and by supplanting the smell of exhaust fumes with the scent of pine forests we hope (be the Good Lord willing) to be able to spend many, many years at this enjoyable task of preparing LIVE STEAM monthly!

— W. C. F. —

LIVE STEAM

Post Office Box 635 Cadillac, Michigan 49601

Please renew my subscription to LIVE STEAM. $_____ enclosed.

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NAME:

STREET: TEL. NO.

TOWN: STATE: ZIP:

I am a member of BLS ☐YES ☐NO, and OWN ☐or have built ☐in

(YEAR) a miniature live steam locomotive,

SCALE: , GAUGE: , TYPE:

WHEEL ARRANGEMENT: , DESIGNED BY:

, CASTINGS BY:

I have feet of track, OTHER EQUIPMENT:

I would like other BLS members to visit by appointment: ☐YES ☐NO.

Belong to Steam Clubs:

Would you buy a $2 directory of all BLS Members ☐YES ☐NO
Please send names of Non-members you know on separate card.

DON'T FORGET THE BLS ROSTER

If you haven't already sent in the information needed to include with your name in the new Directory of Live Steamers being prepared, please send us the information requested on the coupon at the left as soon as possible. If you don't want to clip your copies of LIVE STEAM, just include the information on a sheet of paper or post card (post card size if at all possible) so that we can begin tabulation at the very earliest date.
Send this information to:

LIVE STEAM
Post Office Box 635
Cadillac, Michigan 49601

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COAL – preferably Welsh steam coal or any suitable American type for 3½" scale engine. Need about 100 lbs. Paul L. DeVerter, 3427 Banbury Place, Houston, Texas 77027

1" or 1½" completed or partially completed Live Steam locomotive. Send photo, price, age, text date and phone number. Will reply to all letters. L. D. Edwards, 2816 Rosemont Avenue, Medford, Oregon 97501, phone 503 – 772-6804.

Electric trains made before 1941. Will pay top cash. Also want Buddy-L push toys. Al Staufer, Route 4, Medina, Ohio 44256.

FOR SALE

Locomotive bell, Locomotive drawings and their attachments. Jack M. Fesco, 4309 Edenhurst Avenue, Los Angeles, California 90039

1½" scale truck castings $40.00 per pair. Photo 25¢. Ben Nixon, 927 Woodland, Southington, Pa. 18966.

12" gauge, ¼ scale commercial steam locomotive, A-1 condition, state approved. Engine built in 1901. Max Stauffer, 884 Serena Drive, Pacifica, Calif. 94044.

1½" scale 7½" gauge 4–6–4 oil burner, 12" steel boiler, steam operated water pump and 6V generator, excellent steamer. Mrs. Raymond Keerling, 15856 Via Cordoba, San Lorenzo, Calif. 94580, phone 415 – 276-7768.

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